

ABSTRACT OF THE DISCLOSURE

An optical device capable of controlling its optical transmittance. The optical device has a first liquid conductive or having a polarity and a second liquid. The first and second liquids are substantially equal in refractive index but differ in transmittance. The first and second liquids do not mix with each other. The first and second liquids are sealingly contained in a container in such state that the boundary therebetween has a predetermined shape. When a voltage is applied between these liquids through electrodes formed in such a place or condition as to avoid interference with passage of a bundle of rays incident upon the optical element, the output of the applied voltage is selected under control to change the shape of the boundary, thereby changing the quantity of transmitted light in the bundle of rays traveling through the optical device.